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United States Patent [19]

Bowen et al.

[11] **Patent Number:** **6,046,730**[45] **Date of Patent:** ***Apr. 4, 2000**[54] **BACKLIGHTING SCHEME FOR A MULTIMEDIA TERMINAL KEYPAD**

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[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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Related U.S. Application Data

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[51] **Int. Cl.⁷** **G06F 1/16**

[52] **U.S. Cl.** **345/168; 345/74; 345/167; 345/184; 250/227.22; 313/372; 379/368**

[58] **Field of Search** **345/168, 74, 167, 345/184; 341/21, 22, 23; 313/309, 497, 372; 379/368; 250/227.22**

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[57] **ABSTRACT**

A housing assembly for an ISDN multimedia capable wireless interface device having a plurality of operating capabilities. The housing assembly comprises a main housing, a cover, hinge assembly for coupling the cover to the main housing. The hinge assembly enables the cover to pivot and articulate relative to the main housing to transform the housing assembly into a plurality of mechanical configurations via sensors responsive to the pivoting and articulating of the cover provided in the housing assembly. The cover includes an illuminated keyboard having a display for selectively providing pixel-based graphics and light. The keyboard is disposed over the display when the device is operating in one of a plurality of operational modes. Each keypad of the keyboard has an image viewing surface and coherent light pipe mechanism for conducting light generated by the display to the image viewing surface the keypad. The upper rear surface of the main housing includes three unmarked softkeys which enable finger access for various device functions. The keys are software controlled and as such operate to provide a mouse, cursor control, number and text generation, video camera control and other like device features.

23 Claims, 5 Drawing Sheets